

## Flange Mount : I<sup>2</sup>C Rotary Position Sensor

RotaCol® Flange is precision contactless rotary position sensors are available in plastic housing with 22, 25, 28 and 30 mm housing diameter. Flange mounting has shaft diameter of 6mm Ø. Mechanical angle is 360° without stop. Flanges has polymer sleeve bearing. Default version has low torque I<sup>2</sup>C interface has bidirectional Master- slave communication. The I<sup>2</sup>C address is fixed. It is "0x36" or "0110110". With I<sup>2</sup>C interface, sensor acts as slave and microcontroller is the master. The SDA signal is the bidirectional data line. The SCL signal is the clock generated by the I<sup>2</sup>C bus master to synchronize sampling data from SDA. The change in the state of SDA from high to low while SCL is high defines the START condition. A change in the state of SDA from low to high while SCL is high defines the STOP condition.

### 22C ERCF



Interconnection - Flat cable

[Link for Datasheet :](http://www.rotacol.info/22cercf.pdf)  
[www.rotacol.info/22cercf.pdf](http://www.rotacol.info/22cercf.pdf)

### Flange Mount : 22mm Ø *Ecoline* I<sup>2</sup>C Rotary Position Sensor

- 22mm Ø plastic housing
- Hall CMOS technology
- I<sup>2</sup>C : Master- slave communication
- Shaft diameter : 6mm Ø
- Mechanical angle : 360° without stop
- Stainless steel shaft
- polymer bearing
- Shock and vibration proof
- Interconnection :  
4 core flat cable 0.15 mtr long

#### Type

#### 22C ERCF

Electrical angle	0-360°
Supply voltage	3.3V±10% / 5V DC
Output signal	I <sup>2</sup> C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer .
Resolution steps	4096 (12 bit)
Mech.speed (max)	3000 rpm
Elec. speed (max)	800 rpm
Rotary Life	~ 15 mil. rotations

### 28C ERCF



Interconnection - Flat cable

[Link for Datasheet :](http://www.rotacol.info/28cercf.pdf)  
[www.rotacol.info/28cercf.pdf](http://www.rotacol.info/28cercf.pdf)

### Flange Mount : 28mm Ø *Ecoline* I<sup>2</sup>C Rotary Position Sensor

- 28mm Ø plastic housing
- Hall CMOS technology
- I<sup>2</sup>C : Master- slave communication
- Shaft diameter : 6mm Ø
- Mechanical angle : 360° without stop
- Stainless steel shaft
- polymer bearing
- Shock and vibration proof
- Interconnection :  
4 core flat cable 0.15 mtr long

#### Type

#### 28C ERCF

Electrical angle	0-360°
Supply voltage	3.3V±10% / 5V DC
Output signal	I <sup>2</sup> C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer .
Resolution steps	4096 (12 bit)
Mech.speed (max)	3000 rpm
Elec. speed (max)	800 rpm
Rotary Life	~ 15 mil. rotations

### 25C RSF



Interconnection -  
Mini. push-pull connector

[Link for Datasheet :](http://www.rotacol.info/25crsf.pdf)  
[www.rotacol.info/25crsf.pdf](http://www.rotacol.info/25crsf.pdf)

### Flange Mount : 25mm Ø *RS Speed Connect* I<sup>2</sup>C Rotary Position Sensor

- 25mm Ø plastic housing
- Hall CMOS technology
- I<sup>2</sup>C : Master- slave communication
- Shaft diameter : 6mm
- Mechanical angle :  
360° without stop (O)
- Stainless steel shaft
- Polymer bearing
- Shock and vibration proof
- Interconnection : cable gland (OCG),  
Miniature push-pull connector (OCM),  
terminal block axial (OCTA) / radial (OCTR)

#### Type

#### 25C RSF

Electrical angle	0-360°
Supply voltage	3.3V±10% / 5 VDC
Output signal	I <sup>2</sup> C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer . .
Resolution Steps	4096 (12 bit)
Mech.speed (max.)	3000 rpm
Elec. speed (max.)	800 rpm
Life (rotations)	~ 15 mil. rotatons

## 30C RSF

## Flange Mount : 30mm Ø *RS Speed Connect* I<sup>2</sup>C Rotary Position Sensor



Interconnection -  
Mini. push-pull connector

[Link for Datasheet :](http://www.rotacol.info/30crsf.pdf)  
[www.rotacol.info/30crsf.pdf](http://www.rotacol.info/30crsf.pdf)

- 30mm Ø plastic housing
- Replacement of optical encoders
- Hall effect technology
- I<sup>2</sup>C : Master- slave communication
- 360° continuous rotation
- Shaft diameter : 6mm
- Stainless steel shaft
- Shock and vibration proof
- Polymer bearing
- Interconnection : cable gland (OCG), Miniature push-pull connector (OCM), terminal block axial (OCTA) or radial (OCTR)

### Type **30C RSF**

Electrical angle	0-360°
Supply voltage	3.3V±10% / 5 VDC
Output signal	I <sup>2</sup> C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer . .
Resolution Steps	4096 (12 bit)
Mech.speed (max.)	3000 rpm
Elec. speed (max.)	800 rpm
Life (rotations)	~ 15 mil. rotatons

## 30C LOCF

## Flange Mount : 30 mm Ø *LoColine* I<sup>2</sup>C Rotary Position Sensor



Interconnection : Round Cable with  
rubber grommet -OCR

[Link for Datasheet :](http://www.rotacol.info/30clocf.pdf)  
[www.rotacol.info/30clocf.pdf](http://www.rotacol.info/30clocf.pdf)

- 30mm Ø plastic housing
- Low cost
- I<sup>2</sup>C : Master- slave communication
- Shaft diameter : 6mm Ø
- Mechanical angle :  
360° without stop continuous type
- Polymer bearings
- Default version with medium torque
- Interconnection : 4 core round cable

### Type **30C LOCF**

Electrical angle	0-360°
Supply voltage	3.3V±10% / 5V DC
Output signal	I <sup>2</sup> C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer
Resolution steps	4096 (12 bit)
Mech.speed (max.)	3000 rpm
Elec. speed (max.)	800 rpm
Life (rotations)	~ 15 mil. rotatons